

### ABSTRACT OF THE DISCLOSURE

An apparatus and method of managing received packets to be transmitted from a network device stores the received packets on one of two different buffers. In particular, the received packets are one of a first type of data packet and a second type of packet.

Each one of the first type is stored in a first buffer having a first drop function, while each one of the second type is stored in a second buffer having a second drop function. Each respective drop function specifies a packet drop rate as a function of the average number of packets in its respective buffer. The first drop function has a first average drop rate over a specified time interval, while the second drop function has a second average drop rate over the specified time interval. The first average drop rate and the second average drop rate have a predefined relationship. Accordingly, if the two drop rates do not comply with the predefined relationship, then at least one of the two average drop rates are modified.